



CONTROLLING TUBERCULOSIS GLOBALLY

WHAT IS THE PUBLIC HEALTH ISSUE?

- Tuberculosis (TB) is a global emergency and a leading infectious killer of young adults worldwide, claiming the lives of about 2 million people each year. About one third of the world's population is infected with the bacterium that causes TB, *Mycobacterium tuberculosis*.
- By 2020, nearly 1 billion people will be newly infected, and despite the existence of effective treatments, 200 million will get sick, and 35 million will die from TB.
- Controlling TB is cost-effective; the World Bank has ranked the directly observed therapy short-course (DOTS) strategy as one of the "most cost-effective of all health interventions."

WHAT HAS CDC ACCOMPLISHED?

CDC works closely with the World Health Organization (WHO), the International Union Against TB and Lung Diseases, the U.S. Agency for International Development (USAID), the Royal Dutch Tuberculosis Society, and the TB control programs of numerous countries to control the spread of the disease globally. Efforts are focused on improving the quality of TB control programs in countries with a high burden of TB or those that contribute most to the U.S. epidemic. The global strategy is based on cornerstone activities that are mutually reinforcing and include providing program support with technical assistance in program management and implementation, focusing on those countries which impact U.S. morbidity the most with TB cases in non-U.S.-born populations, and addressing multi-drug resistant TB (MDR TB) and TB/HIV co-infection. Collaborative efforts include the *Stop TB Initiative* and the Tuberculosis Coalition for Technical Assistance that provides assistance to specific countries.

Example of Program in Action

TB rates in Russia are increasing at an alarming rate, as are rates of drug resistance and HIV prevalence. Factors contributing to the increase in TB include the inability to financially support the needed infrastructure for TB diagnosis and treatment, the unavailability of quality drugs, high levels of TB transmission in prison settings, and a reluctance to adopt the DOTS strategy as employed in other countries with a high burden of TB and in the United States, as recommended by WHO. CDC is collaborating with USAID and WHO to implement and strengthen basic DOTS programs in the four Russian oblasts (territorial administrative divisions). CDC has implemented DOTS-plus, the WHO strategy for the management of MDR TB treatment in low-resource settings, in two of these oblasts.

CDC has developed an extensive diagnostic and treatment protocol; assigned staff on 3-month temporary duty assignments to help implement the DOTS and DOTS-plus strategies; assigned a technical advisor for TB at USAID/Russia; helped establish a national TB surveillance system; supported epidemiologic studies of risk factors for the development of MDR TB in the Russian setting; provided laboratory training and quality assurance for drug sensitivity testing; revised international training materials for use in Russia; and developed a pilot project and country strategy to address the impact on of these interventions on TB control within Russia. CDC has also developed and is implementing a pilot project to evaluate and implement effective strategies for the control, care, and treatment of HIV-associated TB.

WHAT ARE THE NEXT STEPS?

CDC will continue to collaborate with international partners to support global TB programs; work to evaluate the effectiveness of treatment strategies for MDR TB in low-resource settings, particularly in countries of the former Soviet Union; continue to support expansion of the DOTS strategy in countries with high TB burden; and support regional TB activities throughout southern Africa.

For additional information on this or other CDC programs, visit www.cdc.gov/program

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